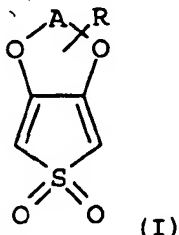


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## WE CLAIM:

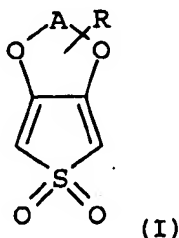
1. A 3,4-alkylenedioxythiophenedioxide compound represented by formula (I):



10 in which: A represents a C<sub>1-5</sub>-alkylene bridge; R represents an optionally substituted C<sub>1-24</sub>-alkyl, C<sub>3-18</sub>-cycloalkyl, C<sub>1-18</sub>-alkoxy or polyethylene oxide group (optionally with at least one substituent selected from the group consisting of an alcohol, amide, ether, ester or sulphonate group) or an optionally substituted aryl group.

- 15 2. Compound according to claim 1, wherein said compound is 2,3-dihydro-thieno[3,4-b][1,4]dioxine 6,6-dioxide.

3. A polymer comprising monomeric units of at least one compound represented by formula (I):



25 in which: A represents a C<sub>1-5</sub>-alkylene bridge; R represents an optionally substituted C<sub>1-24</sub>-alkyl, C<sub>3-18</sub>-cycloalkyl, C<sub>1-18</sub>-alkoxy or polyethylene oxide group (optionally with at least one substituent selected from the group consisting of an alcohol, amide, ether, ester or sulphonate group) or an optionally substituted aryl group.

- 30 4. Polymer according to claim 3, wherein said polymer further comprises monomeric units of at least one thiophene or pyrrole compound.